

source, wherein the collected ambient light is used as a backlight of the liquid crystal display panel;

a light receiving device substantially counteracting an optical path of the ambient light collected by the light collector and illuminating a rear surface of the liquid crystal display panel to detect the amount of collected ambient light; and

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concl.
a control circuit electrically connected to the liquid crystal display panel and the light receiving device, wherein the control circuit varies the predetermined display characteristic in accordance with the amount of the detected ambient light, wherein the predetermined display characteristic includes transmittance, the control circuit changing a minimum transmittance in accordance with the amount of collected ambient light, and wherein the liquid crystal display panel includes electrodes to which a voltage of a predetermined range is applied, wherein the control circuit shifts the predetermined voltage range in accordance with the amount of collected ambient light to thereby change the minimum transmittance.

Sub 2
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7. (Twice Amended) A liquid crystal display apparatus comprising:

a liquid crystal display panel having a predetermined display characteristic;

a luminescent unit located adjacent to the liquid crystal display panel, wherein the luminescent unit includes a light collector, which collects ambient light, and a light source, wherein the collected ambient light is used as a backlight of the liquid crystal display panel;

a light receiving device substantially countering an optical path of the ambient light collected by the light collector and illuminating a rear surface of the liquid crystal display panel to detect the amount of collected ambient light; and

5 a control circuit electrically connected to the liquid crystal display panel and the light receiving device, wherein the control circuit varies the predetermined display characteristic in accordance with the amount of the detected ambient light, wherein the predetermined display characteristic includes transmittance, the control circuit changing a minimum transmittance in accordance with the amount of collected ambient light, and wherein the liquid crystal display panel includes electrodes to which a voltage of a
10 predetermined range is applied, and wherein the control circuit narrows the predetermined voltage range in order to decrease the contrast ratio when the amount of collected ambient light is equal to or greater than a predetermined value.

16. (Twice Amended) A liquid crystal display apparatus comprising:

a liquid crystal display panel having a predetermined display characteristic;

a luminescent unit located adjacent to the liquid crystal display panel for providing light to the display panel to illuminate the display panel, wherein the luminescent unit includes a light collector, which collects ambient light, and a light source, wherein the collected ambient light is used as a backlight of the liquid crystal display panel;

a light receiving device substantially countering an optical path of the ambient light collected by the light collector and illuminating a rear surface of the liquid crystal

display panel to generate a light amount signal corresponding to the amount of collected ambient light; and

a control circuit electrically connected to the liquid crystal display panel and the light receiving device, wherein the control circuit varies the predetermined display characteristic in accordance with the light amount signal, and wherein the liquid crystal display panel includes:

first and second substrates;

a liquid crystal layer arranged between the first and second substrates; and

a sealed portion for sealing the liquid crystal layer and defining a peripheral area and a display area of the liquid crystal display panel, wherein the light receiving device is formed on one of the facing surfaces of the first and second substrates in the peripheral area and is arranged at a side of the liquid crystal display panel.

17. (Twice Amended) A liquid crystal display apparatus comprising:

a liquid crystal display panel having a predetermined display characteristic;

a luminescent unit located adjacent to the liquid crystal display panel for providing light to the display panel to illuminate the display panel, wherein the luminescent unit includes a light collector, which collects ambient light, and a light source, wherein the collected ambient light is used as a backlight of the liquid crystal display panel;

a light receiving device substantially countering an optical path of the ambient light collected by the light collector and illuminating a rear surface of the liquid crystal